

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**RECEIVED
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Inventor : William B. DRAGAN et al
Serial No. : 10/085,847
Filed : February 27, 2002
For : DENTAL CAPSULE FOR PLACEMENT OF HIGH
VISCOSITY DENTAL COMPOSITE MATERIAL WITH
REDUCED EXTRUSION FORCE

Art Unit : 3732
Examiner : Todd E. MANAHAN

Attorney Docket : P-2354.CIP2.

Commissioner for Patents
P. O. Box 1450
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DECLARATION OF RYAN DUBEY
Under Rule 132

I, Ryan Dubey, hereby declare and state the following:

1. I received a Bachelor of Science degree in Mechanical Engineering in 1996 from the University of New Haven. After graduation from the University of New Haven I worked for several years as an engineer in the aerospace industry. Subsequently, I become and am currently employed by Centrix, Inc. as a Product Development Engineer.

2. I conducted and supervised a series of concurrent test in order to determine, evaluate, and compare two different dental capsules.

3. I tested a capsule identified as part number 919109 and having a structure substantially as indicated in Fig. 5 of United States Patent 5,165,890, hereinafter referred to as Old Capsule. A copy of Fig. 5 of United States Patent 5,165,890 is attached as **Exhibit 1**.

4. I tested another capsule identified as part number 919142 and having a structure substantially as identified in Figs. 2 and 3 of the present patent application identified above, the capsule hereinafter referred to as New Capsule. A copy of Figs. 2 and 3 of the present patent application, identified above, is attached as **Exhibit 2**.

5. The Old and New Capsules were machined slightly to provide the same 0.200 inch inside diameter of the body portion and a similar surface finish. The discharge end and the discharge inside diameter were the same dimension for both the Old and New Capsules. The Old and New Capsules were filled with the same relatively high viscosity dental composite material. After filling, the New and Old Capsules were plugged with the same pistons. Eight Old Capsules and eight New Capsules were prepared as indicated above and the dental composite material expressed by advancing the piston using a Com-Ten S900 compression/tensile

testing machine. The expression forces recorded for each sample are indicated in the following tables.

Old Capsule	
Sample Number	Expression Force (lbs)
1	44.2
2	42.2
3	42.4
4	43.3
5	44.0
6	40.1
7	44.3
8	44.3


New Capsule	
Sample Number	Expression Force (lbs)
1	34.7
2	38.6
3	36.7
4	34.8
5	36.4
6	37.9
7	33.0
8	36.6

6. The average expression force for the Old Capsules is 43.0 lbs. The average expression force for the New Capsules is 36.1 lbs. The average difference in expression force is 6.9 lbs. Therefore, the New Capsules have an expression force that is approximately 16% less than the expression force of the Old Capsules.

7. The comparative test of the Old and New Capsules resulted in the New Capsule showing unexpected superior properties or advantages by substantially reducing the expression or extrusion force required to express the relatively high viscosity dental material.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

10/21/04
Date


Ryan DUBEY